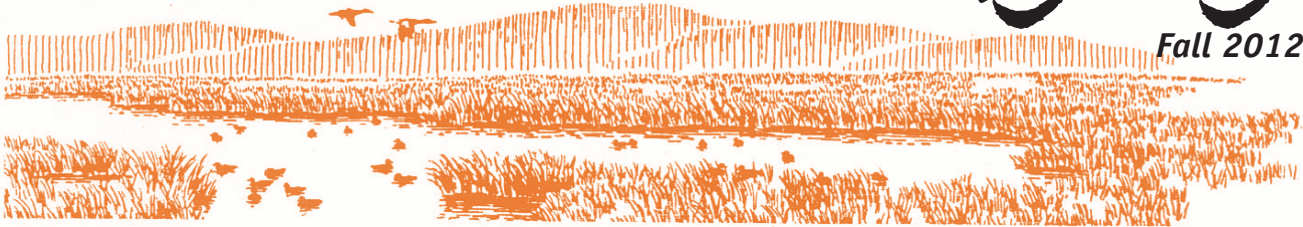


# The Flyway

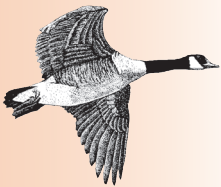
Fall 2012



Quarterly newsletter of Nisqually and Grays Harbor National Wildlife Refuges

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**Waterfowl hunting and seasonal trail closure dates: October 13-17 and October 20 through January 27, 2013.**

## Seasonal Freshwater Wetland Management Benefits Wildlife

By Jesse Barham

This is the time of year when American Wigeon, Green-winged Teal, Northern Pintail, Mallards and other ducks and geese start coming back to our area. October through April is the best time to view large flocks of waterfowl on the Nisqually Delta and other places around Puget Sound. The Nisqually Delta is a migration and overwintering location for waterfowl. Some birds on their fall migration stop, rest, feed, and move on south. Others spend the entire winter here. The landscape position of the

Nisqually Delta provides protection from the prevailing southerly winds during these months and our mild maritime climate has relatively few days of sub-freezing weather.



*Cackling Geese and various waterfowl utilizing seasonal freshwater wetlands during the winter months. Photo: John Whitehead*

The salt marsh and mudflats of the estuary provide very productive feeding and resting areas for wintering birds. The close proximity of quality freshwater wetlands provides habitat diversity which allows for species diversity. The Refuge manages both permanent freshwater wetlands (have visible water year round) and seasonal freshwater wetlands (water visible

during fall and winter). Seasonal wetlands look different at different times of the year; during the spring and summer, they may

*Continued on page 2*

## Conservation Planning Continues for Grays Harbor NWR and Black River Unit

Nisqually National Wildlife Refuge Complex is continuing to develop Comprehensive Conservation Plans (CCP) for Grays Harbor National Wildlife Refuge and the Black River Unit of Nisqually NWR with the help of the public, partners, and interested stakeholders. The CCPs will guide management of these Refuges over the next 15 years. The plans provide a timely oppor-

tunity to evaluate habitat management and public programs. Refuge purposes will guide the process: to protect wildlife and habitat first and provide opportunities for wildlife-dependent recreation consistent with wildlife needs.

Two planning update newsletters were issued and two public open houses held last year, to provide an intro-

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# Freshwater Wetland Management

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not look “wet” at all. Waterfowl use both fresh and saltwater habitats.

Historically the freshwater habitats would have been found in areas south of I-5 but over the years these were converted to agricultural uses.

## Creating Better Seasonal Wetlands

The management and enhancement of seasonal freshwater wetlands is an important part of the habitat program as described in the Refuge’s Comprehensive Conservation Plan (CCP). Along with the restoration of 762 acres of historic tidal habitat, the CCP called for the enhancement of 250 acres of freshwater wetlands behind a new exterior dike. In 2008-2010, concurrent with the estuary restoration project and assisted by Ducks Unlimited, many actions were taken to improve management capabilities in the seasonal freshwater wetlands. Dirt was strategically removed from

these areas to enlarge the wetlands and to provide some contour and depth. This would allow water to



pond up in the wetlands during the fall and winter. The dirt that was removed was used to build the new exterior levee. New interior levees were constructed which divide the

wetlands into five separate units and water control structures were installed. The smaller units make it easy to manage water levels and invasive plants. Today, roughly 170 acres of grasslands and seasonal freshwater wetlands within the dike are managed to benefit waterfowl and other migratory birds. Fall and Winter on the Wetlands A variety of methods are used to provide productive habitats for over-wintering waterfowl in the seasonal freshwater units. The basic strategy involves techniques often referred to as moist-soil management. Flooding units during the fall and winter to appropriate depths for waterfowl foraging is a key component, allowing dabbling ducks easy access to food resources. Rainfall is the

*Continued on page 4*

# Conservation Planning Continues

From page 1

duction to the planning process and gather scoping comments. Comments received are being used to develop draft preliminary alternatives. A new Planning Update will be issued this fall describing preliminary alternatives. Later this year, a Draft CCP/EA will be released for public comment. Your ideas and input on this Draft plan are needed to provide a more complete and thoughtful process.

Grays Harbor NWR is located in the northeast end of the Grays Harbor estuary on the southwestern Washington coast near Hoquiam. Part of the Chehalis River watershed, it consists of approximately 1,500 acres of estuary and forested habitats. The Grays Harbor estuary is one of four major staging areas for migrating shorebirds in North America and hosts one of the largest concentrations of shorebirds on the Pacific coast, south of Alaska.

The Black River Unit is located five miles southwest of Olympia, Washington, and is managed as part of Nisqually NWR. The Refuge includes more than 1,400 acres

in the northern half of the Black River, the most intact low lying river system remaining in western Washington. An important northern tributary of the Chehalis River, it consists of a diverse mosaic of freshwater and forested habitats and provides spawning and rearing habitat for salmon and coastal cutthroat trout. At least 150 species of migratory birds use the wetland and riparian habitats. The Refuge provides crucial breeding habitat for the Oregon spotted frog, a federal candidate species and State listed as endangered.

For those interested in learning more, please visit the Refuge website or contact the Refuge by writing (Refuge Manager, Nisqually NWR Complex, 100 Brown Farm Rd, Olympia, WA, 98516) or calling at 360-753-9467 to be added to the mailing list to receive future Planning Updates. For more information, including Planning Updates, see the Service’s website at <http://www.fws.gov/pacific/planning/main/docs/WA/docsgraysblack.htm>

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[www.fws.gov/nisqually](http://www.fws.gov/nisqually)

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*Save trees, think green*

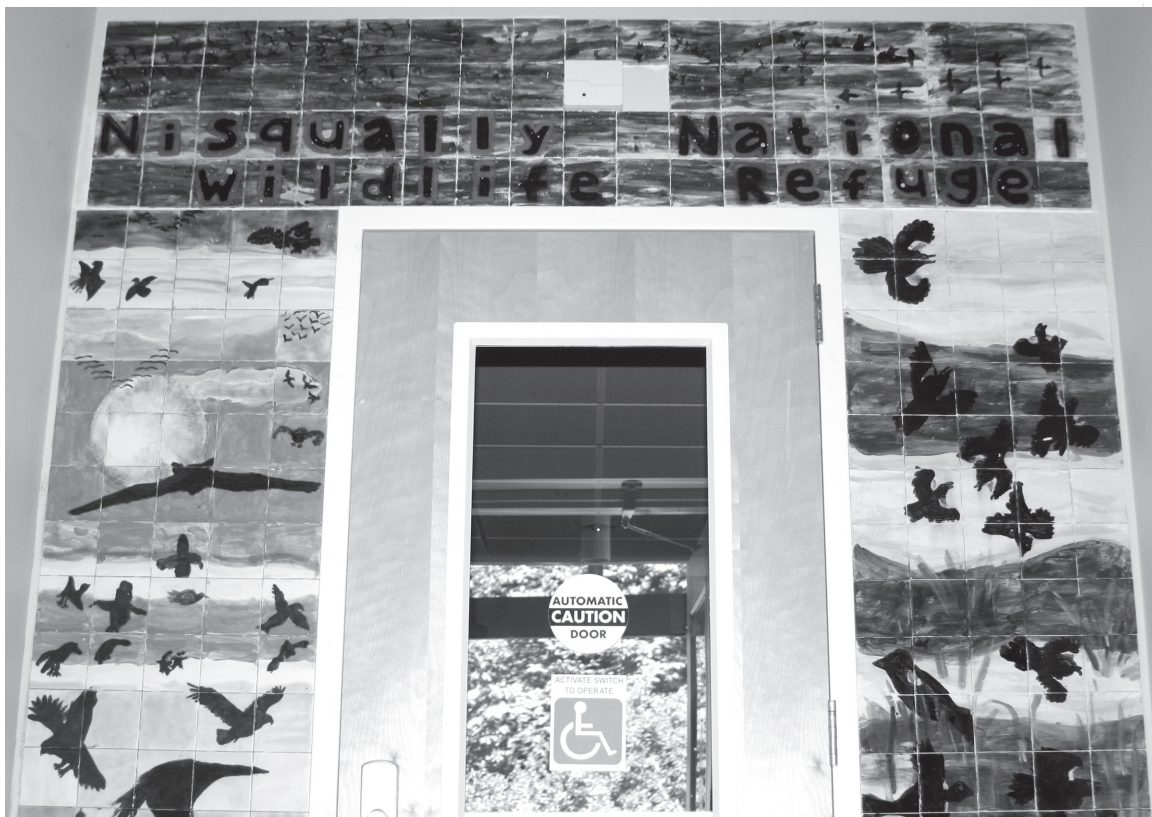
To receive *The Flyway*  
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# New Education Center Murals Installed

The Environmental Education Center entry-way has a new addition; a hand painted tile mural highlighting salmon species of the Pacific Northwest. The mural was both created and installed by the students of Mariah Art School located in West Olympia. Over 20

student's ranging in ages from 6 to 12 contributed to the project. This mural is the latest of four that the Mariah Art School has generously created and installed since the opening of the Environmental Education Center in 2009.



## Freshwater Wetland Management

From page 2

main source of water used to flood the freshwater wetlands; however, from September to December some water is pumped in from an artesian well which helps provide ponded water for early migrants. The Refuge closely manages water levels as various waterfowl and other waterbird species prefer a narrow range of water depths for feeding, primarily from 2-10 inches. The goal is to maximize the amount of ponded area at these depths when waterfowl are most abundant at the Refuge, while slowly flooding more areas to appropriate depths as food resources are depleted.

### Spring and Summer on the Wetlands

Conversely, water levels are slowly reduced in the late spring and early summer, which is a technique known as a drawdown. Draining water off of seasonal wetlands allows wetland plants to germinate and grow through the summer to produce seeds for the coming season. As water levels are reduced, invertebrate food resources are concentrated in smaller areas providing a boost for spring migrants moving through the Refuge. The timing of drawdowns is critical as various plant species will germinate as the season progresses and temperatures warm, with more desirable seed producing species often requiring warmer temperatures. It is also beneficial to wait until the cottonwood and willows have spread most of their seed before exposing the mud that has been under water all winter. Drawdowns also expose other food resources such as substrates for invertebrates. Another benefit to drawdown is that keeping areas flooded longer appears to reduce the vigor and spread of reed canarygrass. This strategy

reduces the amount of maintenance required in future years, by reducing this problematic species vigor and abundance. Varying the depth and timing of inundation is a great way to encourage diverse plant communities in the units and keep them healthy.



*Water plantain, a seed producing plant, seen in an area that had been dominated by invasive reed canarygrass the year before. July, 2012*

### Other Management Techniques

Mowing and plowing/discing are the primary tools used to halt succession and encourage vegetation communities that will provide optimal seed resources for waterfowl. Reed canarygrass and willows can begin to dominate seasonal

wetlands that are not managed periodically, greatly reducing the value of these wetlands for waterfowl and other wildlife. Managing these habitats every few years allows annual wetland plants to germinate, producing abundant seed resources for waterfowl. Active management also reduces perennial and woody species and encourages native moist-soil plant communities that provide the greatest benefit for waterfowl and other waterbirds. Mowing the grassland habitats adjacent to the seasonal wetlands in the late summer allows easier access for waterfowl and creates better browse for geese and wigeon.

Today, management of seasonal wetland habitats are the primary focus of much of the Refuge's habitat management work; these wetlands along with the estuary provide waterfowl and other species in the Nisqually Delta everything they need to spend the winter. Hopefully you will come on out to the Refuge this winter to observe the large numbers of birds taking advantage of these improved habitats. ✎

## New AmeriCorps Intern Joins Grays Harbor Education Program

The Refuge staff would like to welcome Lindsay Loftin, the new

Grays Harbor Education Coordinator and AmeriCorps intern. In this position, Lindsay will travel to third and fourth grade classes to teach an exciting series of environmental science lessons. Topics span from shorebird ecology to watersheds and will help young community members connect, respect and ponder this special ecosystem. She also looks forward to helping coordinate the annual Grays Harbor Shorebird Festival this spring.



Lindsay had lived in North Carolina her entire life until graduating from

Warren Wilson College in Asheville last spring. There she studied Environmental Education and Dance. Most recently she was a Worldwide Organization of Organic Farming intern on an organic farm in Hawai'i. Traveling back to the mainland for the AmeriCorps position, Lindsay returned to North Carolina to drive cross country. Having

never previously visited the Pacific Northwest, she feels captivated by its beauty. She is thrilled to get back into classrooms and is very thankful for this opportunity to serve. ✎

# New and Renewing Friends Membership

Summer 2012

## Senior/Student (\$15)

Marion K Armstrong  
Phyllis J. Sturges  
Madlain Yunkers  
Berverley and Bill Lund  
Alexandrine E. Prine  
Archie Blakely  
Joseph M. Alexanian  
Joani Easterlund  
Jean Gillmer  
M. Goodsell  
Diane Kerlin  
Tricia Shaw

Nicole B DeRecat  
William A. and Daryn J. Fulton  
Cecile Montgomery  
Robert Nailling  
Carol Mastronarde  
Abbie Hage

## Family (\$50)

Susan and Rob Ahlschwede  
Mike Dretzler  
Byrn and Jo Anne Watson  
Victoria Lincoln  
Michael S. Clark  
Robert and Ruth Brigden

## Supporting (\$100)

Sheila McCartan and  
Tom Schooley  
Charles Wilkinson and  
Melanie Ito  
Barbara Young  
Jurgen and Susan Huck  
Carol and Larry Else

## Patron (\$500)

Harold Hartinger

**Friends of Nisqually NWR** is a 501(c)(3) non-profit organization established in 1998 to promote conservation of the natural and cultural resources and fund education and outreach programs at Nisqually National Wildlife Refuge Complex.

## Individual (\$25)

Karen Lewis  
Donna Lonergan  
Cynthia Bond



# Join Friends Of Nisqually NWRC!

Name \_\_\_\_\_

Address \_\_\_\_\_

City/State/Zip \_\_\_\_\_

Email \_\_\_\_\_

- ☐ Please send information on making Friends of Nisqually NWRC a beneficiary of my estate.  
☐ Check here to receive an electronic version of *The Flyway* newsletter by email.

### Individual/Family Memberships

- ☐ \$15 Student/Senior  
☐ \$25 Individual  
☐ \$50 Family  
☐ \$100 Supporting  
☐ \$250 Partner  
☐ \$500 Patron  
☐ \$1000 Benefactor

### Corporate/Business Memberships

- ☐ \$250 Business Sponsor  
☐ \$500 Community Partner  
☐ \$1000 Sustaining Business  
☐ \$2500 Corporate Patron  
☐ \$5000+ Corporate Benefactor

Please make checks payable to: Friends of Nisqually NWRC, 100 Brown Farm Rd, Olympia, WA 98516

*Your tax deductible contribution will help support education programs and preserve the unique habitats, fish, and wildlife of the Nisqually Delta and the Grays Harbor Tideflats.*

OFFICE USE Rec'd \_\_\_\_\_ Mo \_\_\_\_\_ New \_\_\_\_\_ Renew \_\_\_\_\_ Ent \_\_\_\_\_ Mld \_\_\_\_\_

**Friends of Nisqually  
National Wildlife Refuge**

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Olympia WA 98516

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*"...conserving, protecting and enhancing fish, wildlife and plants and their habitats for the continuing benefit of the American people..."*

## Planning a field trip to Nisqually National Wildlife Refuge?

Attend one of our free field trip orientation workshops to get all the tools you need to confidently guide your students on a meaningful outdoor learning experience. You will be introduced to our hands on indoor activities in our Education Center, hike the Twin Barns Loop Trail, and learn about one of the largest restoration projects in the Puget Sound! Refreshments will be provided.

**Workshop Dates:**

Saturday, November 10th, 9am-1pm  
Saturday, January 19th, 9am-1pm  
Saturday, February 16th, 9am-1pm  
Saturday, March 23rd, 9am-1pm  
Wednesday, April 10<sup>th</sup>, 4pm-8pm

*\*\*\*Each year, from May 15th to the end of the School Year only teachers who have participated in a workshop within the past 3 years are able to schedule a class for their field trip.\*\*\**

**Location:** Education Center at Nisqually National Wildlife Refuge (From I-5 Take Exit 114 and follow signs)

Clock hours are available for a fee, approved by ESD113. ✎

**To Register:** Download the registration form from our website [fws.gov/refuge/Nisqually](http://fws.gov/refuge/Nisqually)

Under the **Visit** tab select **For Educators** and then **Field Trip Orientation Workshop**.

**For more information:**

Davy Clark  
Education Coordinator  
Nisqually National Wildlife Refuge  
[davy\\_clark@fws.gov](mailto:davy_clark@fws.gov)  
Phone: (360) 753-9467  
Fax: (360)534-9302

